

PRE-APPEAL BRIEF REQUEST FOR REVIEWDocket Number (Optional)
7784-000947/US

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On Not Applicable

Signature _____

Typed or printed name Mark D. ElchukApplication Number
10/825,388Filed
April 15, 2004First Named Inventor
Victor Blakemore SlaughterArt Unit
1795Examiner
Daborah Chacko
Davis

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record.
Registration number 33,686

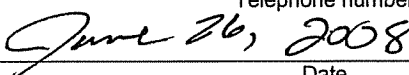
☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____



Signature

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Telephone number



Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/825,388
Filing Date: April 15, 2004
Applicant: Victor Blakemore Slaughter
Group Art Unit: 1795
Examiner: Daborah Chacko Davis
Title: METHOD AND APPARATUS FOR MONITORING
SATURATION LEVELS OF SOLVENTS USED DURING
RAPID PROTOTYPING PROCESSES
Attorney Docket: 7784-000947

Mail Stop Appeal
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

PRE-APPEAL STATEMENT

Sir:

The present Pre-Appeal Statement is being submitted In response to the Final Office Action mailed July 3, 2008. A Notice of Appeal under 37 C.F.R. §41.31 and the required fee under 37 C.F.R. §41.20(b)(1) are also being submitted. The rejections of pending claims are believed to be improper.

Overview of Claimed System and Method

The present system and method relates to a system for monitoring when a bath of solvent has become saturated, as well as predicting how soon the bath will become

saturated. The method may involve dissolving an amount of resin from an object by submersing the object in a liquid solvent contained in a storage. This increases the ratio of the dissolved resin to the solvent of the liquid, the increase of the ratio altering an electrical characteristic of the liquid. The changes in the electrical characteristic of the liquid are used as an indicator of the ratio of the dissolved resin to the solvent of the liquid. The changes in the electrical characteristic of the liquid are also used to drive a visual display that provides a plurality of different indications as to the ratio.

Obviousness rejections of Claims 1, 4, 6, 7, 10, 13 and 16

1, 4, 6-7, 10, 13 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa et al. (U.S. Pat. Pub. No. 2002/0197869) in view of Paal et al. (U.S. Pat. No. 4,015,986), and further in view of newly cited U.S. Patent No. 5,670,376 to Obeng (hereinafter "Obeng"). This rejection is improper.

Claim 1 was amended to recite the operation of "using said changes in the electrical characteristic of the liquid to drive a visual display that is able to provide a plurality of different indications as to said ratio." Independent claims 10 and 17 were amended along similar lines. Claim 1 is not rendered obvious by the Nakagawa et al./Paal et al. combination of references. Nakagawa et al. does not disclose or suggest any kind of display system for visually indicating the condition (or characteristics) of the liquid being used in the stripping system. In the Nakagawa et al. system, the users of the system would not be provided with any visual signal or indication as to the condition of the liquid, let alone whether the liquid was approaching a point at which it would need to be changed. This is because Nakagawa et al. allows

the absorbtimeter 15 and the electrical conductivity meter 16 to feed signals to controllers 30 and 31, which in turn actuate the control valves 24-27 (Figure 1; page 6, paragraph 71) that control the supply of fluids to the treatment bath 1. Thus, there would be no need for a display system in Nakagawa et al. to alert a user as to the changing ratio of various intermixed components making up the liquid, since the maintenance of the liquid in the fluid bath 1 is handled by the addition of various controllers and valves that resupply the treatment bath 1 as needed.

Pall et al. also does not disclose or suggest anything regarding using a display system to indicate the ratio of the dissolved resin to the solvent. In Pall et al., it is simply explained that the solvent is used for a period of time before being changed. A time period of two weeks is mentioned as one specific time period.

U.S. Patent No. 5,670,376 to Obeng

The Examiner has cited Obeng to show a “display” being used to visually display changes in the conductivity. Obeng does not show any such component, nor does it suggest the use of a display system that can display a plurality of different indications as to the ratio of the dissolved resin to the solvent. At best, Obeng discloses the use of a computer that may trigger an alarm when the solvent conductivity reaches a certain predetermined threshold (Column 3, lines 21-24). It is noteworthy that Obeng does not show or mention the use of any form of “display system” as used in the method and system of the Applicant’s disclosure. The Abstract, cited by the Examiner as mentioning a “display”, merely mentions “monitoring” the quality of solvents used in semiconductor manufacturing. Column 3, lines 1-38, which the Examiner says

discloses that “*changes in the conductivity . . . are measured, monitored and visually displayed via a computer*”, does not disclose displaying conductivity changes via a display. This section of text merely states that the computer **may signal alarm flags** if the conductivity reaches a certain point, and that the computer 23 “trips” an alarm when the conductivity of the solvent reaches an upper limit. Again, there is absolutely no mention that conductivity values are displayed on a display system for a user to see.

It is also noteworthy that Obeng makes absolutely no mention of using a display system to display conductivity values. This is further evidence that the combination of limitations recited in the above mentioned claims is new and non-obvious.

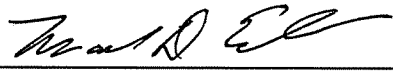
The Examiner has also ignored important ancillary considerations in determining whether one of ordinary skill in the art would have been motivated to make the combination of teachings that the Examiner now uses for his obviousness rejection. An important fact is that there simply is no need for any display operation (or subsystem) in the Nakagawa et al. system. Since the control of the constituency of the intermixed liquid in Nakagawa et al. is controlled automatically by controllers 30 and 31, and valves 24-27, there would be absolutely no motivation for one skilled in this art to have come up with the idea of using a display system to help provide a visual indication as to the ratio of the fluid in the bath 1 of Nakagawa et al. A visual display system would have provided no benefit and would have served no purpose, if incorporated into the Nakagawa et al. system.

Independent claim 10 also recites the “display system” limitations in the last paragraph thereof. Independent claim 17 similarly recites a “display device” which can display indications as to changes in the conductivity of the solvent. In view of the

remarks above, it is believed that these claims are also now allowable. Since the independent claims are believed to be allowable, it is believed that the pending dependent claims are also presently in allowable form.

Respectfully submitted,

Dated: June 26, 2008

By: 
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